12.3.25
(ATTACHMENT 2)

940-5396
Jon Meberg
(cellular)

8/29/1989 ATTACHMEN

CHRISTINE O. GREGOIRE
Director

STATE OF WASHI
DEPARTMENT OF

4350-150th Ave. N.E. • Redmond, Washington 98052-5301 • (206) 867-7000

AUG 3 0 1989

DUWAMISH SHIPYARD, INC.
5658 West Marginal Way SW
Seattle, WA 98106

Attention: Mr. Donald A. Meberg, Operations Manager

RE: NPDES Permit Issuance
Permit No. WA-003093-7
Expiration Date: August 29, 1994

Dear Mr. Meberg:

In accordance with the provisions of Chapter 90.48 RCW Water Pollution Control Laws as amended and the Federal Water Pollution Control Act (The Clean Water Act) Title 33 United States Code, Section 1251 et seq., the enclosed waste discharge Permit No. WA-003093-7 is hereby issued to DUWAMISH SHIPYARD, INC., Seattle, WA.

The permittee is authorized to discharge only wastewater flows of drydock flooding water, marine railway runoff, stormwater runoff, cooling water, ballast water and hydroblasting washwater to the Duwamish River (King County), and subject to the terms and conditions of the permit.

An application for permit renewal shall be made at least 180 days prior to the expiration date of this permit. If at any time during the term of this permit a question should arise regarding the permit or discharge, or if there is a significant change in the discharge or operation, please contact Mr. Richard Koch at (206) 867-7000.

Sincerely,

John H. Glynn
Acting Section Supervisor
Permits & General Water Quality
Northwest Regional Office

Enclosures
cc: EPA-WOO, Olympia

Permit Number WA-003093-7

Issuance Date : August 29, 1989
Expiration Date: August 29, 1994

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
WASTE DISCHARGE PERMIT

State of Washington
DEPARTMENT OF ECOLOGY
Olympia, Washington 98504

In compliance with the provisions of
Chapter 90.48 Revised Code of Washington as amended
and
The Federal Water Pollution Control Act as amended
(The Clean Water Act)
Title 33 United States Code, Section 1251 et seq.

Duwamish Shipyard, Inc.
5658 West Marginal Way S.W.
Seattle, Washington 98106

Plant Location:	Receiving Water:
5658 West Marginal Way S.W. Seattle, Washington 98106	Duwamish River Class B
Industry Type:	Discharge Location:
Ship building, repair and conversions	Latitude: 47° 33′ 03" N Longitude: 122° 20′ 22" W

Water Segment Number:
04-08-01

is authorized to discharge in accordance with the special and general conditions which follow.

John H. Glynn
Acting Section Supervisor
Permits & Water Quality
Northwest Regional Office
Department of Ecology

INDUSTRIAL

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DEFINITIONS

1) The Daily Average means the highest allowable average of "daily discharges" measured over the monitoring period specifed in permit condition S3(a), monthly, calculated as the sum of all "daily discharge" measurements taken divided by the number of "daily discharge" measurements taken during the monitoring period.

2) Maximum Daily Discharge Limitation means the highest allowable "daily discharge."

3) Daily Discharge means the discharge of a pollutant measured during a calender day or any 24-hour period that reasonably represents the calender day for purposes of sampling.

4) A "24-hour composite" sample shall mean a flow-proportioned mixture of not less than 8 discrete aliquots. Each aliquot shall be a grab sample of not less than 100 ml and shall be collected and stored in accordance with procedures in the most recent edition of Standard Methods for the Examination of Water and Wastewater.

5) A "Grab" sample is a single sample or measurement taken at a specific time or over as short a period of time as is feasible.

6) "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventive maintenance, or careless or improper operation.

7) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

8) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss cause by delays in production.

9) "Bi-monthly" means every other month.

DEFINITIONS (continued)

10) "mgpc" means million gallons per drydock raising or cycling, calculated based on an empty drydock.

11) "Toxicity" means there is a significant difference between the control and any effluent concentration up through 50% in the results observed.

12) "T" means total recoverable metal.

13) "Measurable storm event" means a rainfall accumulation of 0.1 inch or more during a 24 hour period from an individual storm event.

14) "First flush" means a grab sample taken during the first 20 minutes of a stormwater discharge.

SPECIAL CONDITIONS

S1.a EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - for drydocks

During the period beginning on the issuance date of this permit and lasting through the expiration date, the permittee is authorized to discharge flooding water and only those process waters detailed below to the Duwamish River. This discharge is subject to the following limitations and monitoring requirements:

Sampling of water flooding the drydock shall taken at the water surface as the drydock is lowered to launch the vessel and the water is five (5) feet above the drydock deck,

The sampling location shall be in line with the end of the wing wall and approximately five feet out from the wingwall,

The grab samples from each end of the drydock will be composited.

	EFFLUENT LIMITATIONS		MONITORING REQUIREMENTS	
Parameter	Daily Average	Daily Maximum	Minimum Frequency	Sample Type
a) Drydock No.1				
Flow		1.27 mgpc	Monthly	Estimate
Oil & Grease	10 mg/L	15 mg/L(1)	Monthly	Composite
Turbidity		10 NTU (2)	Monthly	Composite
b) Drydock No.2				
Flow		0.58 mgpc	Monthly	Estimate
Oil & Grease	10 mg/L	15 mg/L(1)	Monthly	Composite
Turbidity		10 NTU (2)	Monthly	Composite
c) Vessel Ballast Water (see Special Condition S8(i) for other requirements)				
Oil & Grease	10 mg/L	15 mg/L(1)	Each Use	Grab
d) Vessel Bilge Water (see Special Condition S8(i) for other requirements)				
Oil & Grease	10 mg/L	15 mg/L(1)	Each Use	Grab
Turbidity		10 NTU (2)	Each Use	Grab
pH	Within the range 6.0 to 9.0		Each Use	Grab

S1.a EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - for drydocks (continued)

	EFFLUENT LIMITATIONS		MONITORING REQUIREMENTS	
Parameter	Daily Average	Daily Maximum	Minimum Frequency	Sample Type
e) Non-Contact Cooling Water				
Oil & Grease	10 mg/L	15 mg/L(1)	Monthly	Grab
Temperature		21 °C (3)	Monthly	Grab

Note: (1) Discharges shall not have nor cause a visible oil sheen in the receiving waters.

(2) Turbidity shall be limited to a 10 NTU increase over background conditions when background turbidity is 50 NTU or less or no more than a 20 percent increase if background turbidity is more than 50 NTU.

(3) Under natural conditions, when the ambient water temperature exceeds 21°C in water samples obtained 100 feet beyond the discharge outfall, no temperature increase will be allowed which will raise the receiving water temperature more than 0.3°C.

S1.b EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - for marine railways

During the period beginning on the issuance date of this permit and lasting through the expiration date, the permittee is authorized to discharge marine railway runoff and only those process waters detailed below to the Duwamish River. Measurement of the stormwater runoff from the marine railway work deck will be taken during an incoming tide as close to peak tide as possible. There shall be no surface sheen, scum or residue caused by stormwater runoff from the marine railway. This discharge is subject to the following limitations and monitoring requirements:

	EFFLUENT LIMITATIONS		MONITORING REQUIREMENTS	
Parameter	Daily Average	Daily Maximum	Minimum Frequency	Sample Type
a) Marine railway runoff				
Flow	1600 gpd	8900 gpd	Monthly	Estimate
Oil & Grease	10 mg/L	15 mg/L (1)	Monthly	Grab
Turbidity		10 NTU (2)	Monthly	Grab
b) Vessel Ballast Water (see Special Condition S8(i) for other requirements)				
Oil & Grease	10 mg/L	15 mg/L (1)	Each Use	Grab
c) Vessel Bilge Water (see Special Condition S8(i) for other requirements)				
Oil & Grease	10 mg/L	15 mg/L (1)	Each Use	Grab
Turbidity		10 NTU (2)	Each Use	Grab
pH	Within the range 6.0 to 9.0		Each Use	Grab
d) Non-Contact Cooling Water				
Oil & Grease	10 mg/L	15 mg/L (1)	Monthly	Grab
Temperature		21 °C (3)	Monthly	Grab

Note: (1) Discharges shall not have, nor cause a visible oil sheen in the receiving waters.

(2) Turbidity shall be limited to a 10 NTU increase over background conditions when background turbidity is 50 NTU or less or no more than a 20 percent increase if background turbidity is more than 50 NTU.

(3) Under natural conditions, when the ambient water temperature exceeds 21°C, in water samples obtained 100 feet beyond the discharge outfall, no temperature increase will be allowed which will raise the receiving water temperature more than 0.3°C.

S1.c EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - for graving docks

During the period beginning on the issuance date of this permit and lasting through the expiration date, the permittee is authorized to discharge flooding water and only those process waters detailed below to the Duwamish River. This discharge is subject to the following limitations and monitoring requirements:

Measurement of the surface water will be taken from the each operating graving dock discharge pipe and composited.

	EFFLUENT LIMITATIONS		MONITORING REQUIREMENTS	
Parameter	Daily Average	Daily Maximum	Minimum Frequency	Sample Type
a) Graving Dock				
Flow		5.1 mgd	Monthly	Estimate
Oil & Grease	10 mg/L	15 mg/L(1)	Monthly	Composite
Turbidity		10 NTU (2)	Monthly	Composite
b) Vessel Ballast Water (see Special Condition S7(i) for other conditions)				
Oil & Grease	10 mg/L	15 mg/L(1)	Each Use	Grab
c) Vessel Bilge Water (see Special Condition S7(i) for other conditions)				
Oil & Grease	10 mg/L	15 mg/L(1)	Each Use	Grab
Turbidity		10 NTU (2)	Each Use	Grab
pH	Within the range 6.0 to 9.0		Each Use	Grab

Note: (1) Discharges shall not have, nor cause a visible oil sheen in the receiving waters.

(2) Turbidity shall be limited to a 10 NTU increase over background conditions when background turbidity is 50 NTU or less or no more than a 20 percent increase if background turbidity is more than 50 NTU.

(3) Under natural conditions, when the ambient water temperature exceeds 21°C, in water samples obtained 100 feet beyond the discharge outfall, no temperature increase will be allowed which will raise the receiving water temperature more than 0.3°C.

S1.d EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - for hydroblasting wastewater

During the period beginning on the issuance date of this permit and lasting through the expiration date, the permittee is authorized to discharge hydroblasting wastewater to the Duwamish River. This discharge is subject to the following limitations and monitoring requirements:

Measurement of the discharge will be made from wastewater collected: (1) as the wastewater runs off the hull; or (2) in a collection sump if the drydock is so equipped; or (3) if the hydroblasting wastewater is treated before discharge to the river, the sampling for measurement shall be obtained after treatment.

The average concentration shall be based on at least three samples. If samples are collected from the hull runoff, samples shall be from at least three (3) areas of each vessel's hull. Hull sampling shall represent washwater from the bow, mid-section and stern of the vessel. Samples shall not be composited.

This discharge is subject to the following limitations and monitoring requirements:

	EFFLUENT LIMITATIONS		MONITORING REQUIREMENTS	
Parameter	Maximum	Average	Minimum Frequency	Sample Type
Cu (T)	2.4 mg/L	1.50 mg/L	See Note (5)	Grab
Zn (T)	3.3 mg/L	2.80 mg/L	See Note (5)	Grab
Pb (T)	1.2 mg/L	0.76 mg/L	See Note (5)	Grab
As (T)	3.6 mg/L	1.9 mg/L	See Note (6)	Grab

Note: (5) Hydroblasting wastewater from each vessel shall be sampled unless the paint system is not a significant metal source. Nonsignificant means the highest measured concentration of any total recoverable metal, such as Cu (T), in the hydroblasting wastewater is no more than half the allowable average effluent limit. The hydroblasting wastewater metal concentration shall be based on sampling from at least three vessels. Hydroblasting wastewater from every fourth vessel shall be sampled to ensure compliance.

(6) Samples shall be analyzed for Arsenic (As) when collected from the hull of a wooden vessel. Unless specific information verifies the absence of arsenic.

S1.d EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS
- for hydroblasting wastewater (continued)

Reporting of results should include:

a) The name of the vessel,
b) The vessel dimensions,
c) Type of hull material, i.e. steel, wood, aluminum, fiberglass;
d) Paint system removed,
e) Paint manufacturer, brand names or appropriate generic names;
f) Manufacturer identification codes.

Manufacturer information on the chemical composition of the paint system being removed with anticipated changes due to weathering and length of service, can be submitted to the department as supplemental information which may justify reducing the sampling and analysis requirements of Special Condition S1(d).

S1.e EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - for stormwater discharges

During the period beginning on the issuance date of this permit and lasting through the expiration date, the permittee is authorized to discharge stormwater to the Duwamish River. Measurement of the stormwater will be at the end of the outfall when accessible or at the first catchbasin upstream from the outfall. This discharge is subject to the following limitations and monitoring requirements:

Weather allowing, all reasonable efforts shall be made to sample the first flush discharge of stormwater monthly from April through September. Weather allowing, from October through March the monthly stormwater samples should obtained in the morning during the first week of the month.

Toxicity may be measured with the MICROTOX bioassay test or one of the other bioassay tests specified in Special Condition S5 Biomonitoring Requirements.

	EFFLUENT LIMITATIONS		MONITORING REQUIREMENTS	
Parameter	Daily Average	Daily Maximum	Minimum Frequency	Sample Type
a) Stormwater from outfall No. 4				
Flow	3 gpm	13 gpm	Monthly	Estimate
Oil & Grease	10 mg/L	15 mg/L(1)	Monthly	Grab
Turbidity		10 NTU (2)	Monthly	Grab
Total Suspended Solids		45 mg/L	Monthly	Grab
Temperature		21°C (3)	Monthly	Grab
pH	Within the range of 6.0 to 9.0		Monthly	Grab
MICROTOX	(7)		Quarterly year one	Grab
MICROTOX	(7)		Twice/year year two to five	Grab
Total Copper	(8) & (9)		See Notes	Grab
Total Zinc	(8) & (9)		See Notes	Grab
Total Nickel	(8) & (9)		See Notes	Grab
Total Lead	(8) & (9)		See Notes	Grab
Volatile organics	(8) & (9)		See Notes	Grab
Purgeable hydrocarbons	(8) & (9)		See Notes	Grab
Phenols	(8) & (9)		See Notes	Grab

S1.e EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - for stormwater discharges (continued)

b) Stormwater from outfall No.5

Flow	46 gpm	254 gpm	Monthly	Estimate
Oil & Grease	10 mg/L	15 mg/L(1)	Monthly	Grab
Turbidity		10 NTU (2)	Monthly	Grab
Total Suspended Solids		45 mg/L	Monthly	Grab
Temperature		21°C (3)	Monthly	Grab
pH	Within the range of 6.0 to 9.0		Monthly	Grab
MICROTOX (7)			Quarterly year one	Grab
MICROTOX (7)			Twice/year year two to five	Grab
Total Copper (8) & (9)			See Notes	Grab
Total Zinc (8) & (9)			See Notes	Grab
Total Nickel (8) & (9)			See Notes	Grab
Total Lead (8) & (9)			See Notes	Grab
Volatile organics (8) & (9)			See Notes	Grab
Purgeable hydrocarbons (8) & (9)			See Notes	Grab
Phenol (8) & (9)			See Notes	Grab

Note: (1) Discharges shall not have nor cause a visible oil sheen in the receiving waters.
(2) Turbidity shall be limited to a 10 NTU increase over background conditions when background turbidity is 50 NTU or less or no more than a 20 percent increase if background turbidity is more than 50 NTU.
(3) When the ambient water temperature exceeds 21°C, under natural conditions, in water samples obtained 100 feet beyond the discharge outfall, no temperature increase will be allowed which will raise the receiving water temperature more than 0.3°C.
(7) When the MICROTOX test has indicated the presence of a toxicant(s) in the stormwater runoff, the Northwest Regional Office (NWRO) of the Department of Ecology (WDOE) shall be notified immediately by telephone, 867-7000, and within 72 hours by mail. Additionally, the permittee shall do a quick reconnaissance to locate the likely toxicant source(s).
(8) Samples shall be analyzed at least once a year.
(9) Samples shall be taken for each outfall and analyzed with 48 hours. The chemical analyses, other than the yearly analysis, shall only be performed when the MICROTOX test indicates the presence of a toxicant(s) in the discharge. The purpose of analyses run after the MICROTOX test shall be to identify pollutant sources needing further control or containment. A report identifying the source of any toxicant will be submitted to the NWRO of WDOE and will include recommended changes in storage, containment or management practices to prevent similiar discharges.

S2 COMPLIANCE SCHEDULE

The permittee shall achieve compliance with effluent limits specified for discharge and Best Management Practices in accordance with the following schedule:

For the Marine Railway -

Engineering Report to be submitted 120 days after issuance of permit.

Plans and Specifications are to be submitted 45 days after approval of the engineering report.

Start of Construction is to commence 30 days after approval of plans and specifications.

Construction is to be completed approximately 90 days after start of construction.

For the Steel Drydock-

Engineering Report to be submitted 60 days after issuance of permit.

Plans and Specifications are to be submitted 45 days after approval of the engineering report.

Start of Construction is to commence 30 days after approval of plans and specifications.

Construction is to be completed approximately 90 days after start of construction.

The permittee is expected to meet this compliance schedule. No later than 14 calender days following dates identified above, the permittee shall submit to the NWRO of WDOE a notice of compliance or noncompliance with the specified schedule.

S3. MONITORING AND REPORTING

The permittee shall monitor the operations and efficacy of all Best Management Practices, the pollution control facilities and the quantity and quality of the waste discharged. Monitoring shall include photographs to document the extent of each drydock cleanup.

Photographic records shall be maintained on site to document the use of measures taken to control dust and paint overspray. Such as when, a large vessel or multiple vessels are drydocked and extend over the end of the drydock pontoon deck. A record of all such data shall be maintained.

The permittee shall monitor the parameters as specified in Special Conditions S1, S4 and S5 of this permit. After one year the monitoring requirements and results will be reviewed and revised as necessary.

a) Reporting

Monitoring results obtained during the previous month, unless otherwise directed by the department, shall be summarized and reported on a form provided or approved by the department. The report shall be submitted no later than the 15th day of the month following the completed reporting period. The report shall be sent to the Northwest Regional Office (NWRO) of the Department of Ecology (WDOE), 4350 - 150th Avenue N.E., Redmond, Washington 98052. Monitoring shall start on the issuance date of this permit.

When the MICROTOX test has indicated the presence of a toxicant(s) in the stormwater runoff the NWRO of WDOE shall be notified immediately by telephone, 867-7000, and within 72 hours by mail.

Additionally, the permittee shall do a quick reconnaissance to locate the likely toxicant source(s). A report identifying the source of the toxicant(s) will be submitted to the NWRO of WDOE within 45 days. The report will include: MICROTOX results, results of follow up chemical analyses, recommended changes in storage, containment and or management practices to prevent similiar discharges with an implementing schedule.

S3 MONITORING AND REPORTING (continued)

b) Records Retention

The permittee shall retain for a minimum of three years all records of monitoring activities and results, including all reports of recordings from continuous monitoring instrumentation. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or when requested by the director.

c) Recording of Results

For each measurement or sample taken, the permittee shall record the following information: (1) the date, exact place (a drawing or photograph of the location is preferred), and time of sampling; (2) the date the analyses were performed; (3) who performed the analyses; (4) the analytical techniques or methods used; and (5) the results of all analyses.

For stormwater samples, the permittee shall also report the duration of the storm event sampled, rainfall measurements or estimates of the storm event which generated the runoff sampled, and the time interval between the storm event sampled and the previous measurable storm event.

d) Representative Sampling

Samples and measurements taken to meet the requirements of this condition shall be representative of the volume and varying characteristics of the monitored discharge. Representative sampling shall include sampling of any unusual discharge or discharge condition, including bypasses, upsets, and maintenance related conditions affecting effluent quality.

e) Safe Sampling

If the permittee has reason to believe that sampling of the drydock deflooding water would endanger or subject the sampling person to potential injury, the permittee may elect to alter the sampling location with the concurrence of the department. Before the department concurs on a change of sampling location based on safety considerations the permittee shall describe how the present location is not safe and can not be used safely with extendible sampling devices or other mechanical devices. The permittee shall propose the alternative location and describe how safety is enhanced at the proposed location.

S3 MONITORING AND REPORTING (continued)

f) Test Procedures

All sampling and analytical methods used to meet the monitoring requirements specified in this permit shall, unless approved otherwise in writing by the Department, conform to:

Guidelines Establishing Test Procedures for the Analysis of Pollutants, contained in 40 CFR Part 136.

Methods for Chemical Analysis of Water and Wastes. U.S. Environmental Protection Agency. 1983. EPA 600/4-79-020.

Recommended Protocols for Puget Sound. Tetra Tech for the U.S. EPA Region X. 1986. Puget Sound Estuary Program.

g) Permit Modifications

Monitoring of ambient water and sediment chemistry and biological toxicity is intended to indicate whether or not current permit conditions are stringent enough. Therefore, based on monitoring results the department may establish specific monitoring requirements beyond those identified in section S1 of this permit's special conditions by permit modification or administrative order.

S4 SEDIMENT MONITORING REQUIREMENTS

The permittee shall monitor the sediment conditions of the Duwamish river within the extension of the property lines into the river and the operational limits of the area for marine work at the facility. The monitoring shall define a one time base line condition for future comparisons with the chemicals listed in the Proposed Sediment Quality Standards, WAC-173-204.

Samples shall be obtained just inside the upstream and downstream property lines, between the two drydocks and within the marine railway slip. One additional sample shall be obtained for a reference unless the department at that time has an adequate data base for reference. The permittee shall submit to NRWO of WDOE a sediment monitoring program for approval which shall subsequently be implemented.

The sediment monitoring plan shall be submitted within twelve (12) months of the permit issuance date and executed within thirty (30) months of the permit issuance date, unless the plan has not been approved. The sediment monitoring plan shall include a bioassay using Hyallella azteca or Rhepoynius abronious depending on sediment salinity and be conducted in accordance with Special Condition S5, BIOMONITORING REQUIREMENTS.

The monitoring program's chemical analysis will include analyses for:

1) Priority pollutant metals,
2) Semi Volatile Compounds
   Organic Acids,
   Base Neutral Organic Compounds,
3) Volatile Organic Compounds,
4) Total Organic Carbon, and
5) Grain Size.

Sampling stations will be located to be representative of sediment conditions at the facility. Sampling shall be sufficient for replicates at each station. Sediments shall be sampled to a minimum depth of 5 cm (2 inches). Sampling shall conform to the "Recommended Protocols for Puget Sound" prepared by Tetra Tech for the U.S. EPA Region X, Puget Sound Estuary Program.

S5 BIOMONITORING REQUIREMENTS

a) The permittee shall conduct acute toxicity testing of the effluent quarterly for the first year after permit issuance and semi-annually for the duration of the permit. Additional toxicity testing shall occur any time spills or other unusual events result in different or substantially increased discharges of pollutants.

The testing shall begin within ninety (90) days after this permit's issuance date. A single ninety (90) day extension may be granted if the permittee needs additional time because a commercial or contract laboratory is not available to begin work within the initial ninety (90) day period. The request for an extension shall be made within sixty (60) days after the permit issuance date.

b) If the permittee elects to not use the MICROTOX test, the permittee can follow the general biomonitoring guideline for selection of appropriate species given below.

For the first three test periods, three toxicity tests are required with one species from each group below.

Salmonid survival test (Oncorhynchus kisutch, coho salmon; Salvelinus fontinalis, brook trout; or Salmo gairdneri, rainbow trout)

Daphnia survival test (Daphnia pulex)

Hyallella azteca, or Fathead minnow (Pimephales promelas) survival, or Microtox

The same three organisms shall be used for each of the test periods. After the first three test periods, only the most sensitive species is required to be tested, or if no toxicity is detected the organism shown to be most sensitive for the industry type.

The bioassays shall be conducted in accordance with the following protocols:

Salmonid: (1) "General Procedure for Static-Bioassay to Evaluate Industrial Effluent Toxicity," Washington Department of Ecology. Revised January 24, 1984; and (2) "Biological Testing Methods. Part A, Static Acute Fish Toxicity Test." WDOE 80-12. Revised July 1981.

Daphnia: Peltier, W. and C. I. Weber, "Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms", EPA/600/4-85/013, March 1985.

S5 BIOMONITORING REQUIREMENTS (continued)

Hyallella: Nebeker, A.W., M.A. Cairns, et. al. 1984. "Biological methods for determining toxicity of contaminated freshwater sediments to invertebrates." Environ. Toxic. Chem. 3: 617-630

Fathead minnow: same as Daphnia above.

Microtox: "Microtox System Operating Manual" and other guidance from manufacturer.

c) All quality assurance criteria used shall be in accordance with "Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms", EPA/600/4-85/013, and "Quality Assurance Guidelines for Biological Testing", EPA/600-4-78-043. Test results which are not valid (e.g., control mortality exceeds acceptable level) will not be accepted and must be repeated.

d) Testing shall be conducted on grab or composite samples of effluent. Each sample shall be of sufficient size for bioassays as well as chemical tests required by other provisions of this permit.

e) All test shall be screening tests which measure the response in 0 percent (control) and 100 percent effluent concentrations. (Note: For the Microtox test, the sample preparation requires that 50 percent effluent be used instead of 100 percent effluent.) If mortality or any other significant response (microtox) in a given test exceeds 20 percent in the 100 percent effluent concentration, the permittee shall immediately retest the effluent in a series of dilutions to determine (1) the LC50, and (2) any statistically significant differences between the results for the control and each effluent concentration tested. The permittee shall also investigate for any unusual conditions (spills, poor operating procedures, etc.) which might have caused the toxicity.

If the definitive test demonstrates the presence of acute toxicity, the permittee shall immediately notify NWRO of WDOE and undertake the actions specified in special condition S5) MONITORING REQUIREMENTS. If any toxicity remains after the investigation is completed, additional monitoring or treatment may be required following consulations with the department.

S6 SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN

Within six months of issuance of the permit, the permittee shall file a copy of their Spill Prevention Control and Countermeasure Plan with NWRO of WDOE. This plan shall include information and procedures relative to the prevention of spills and unplanned discharges of oil and hazardous materials such as:

(1) A description of the reporting system which will be used to alert responsible facility management and appropriate legal authorities.

(2) A description of facilities (including overall facility plot) which prevent, control, or treat spills and unplanned discharges and a compliance schedule to install any necessary facilities in accordance with the approved plan.

(3) A list of all hazardous materials used, processed, or stored at the facility which may be spilled directly or indirectly into state waters.

Submittal of this plan, in accordance with these requirements, does not relieve the permittee from compliance with, nor ensure compliance with, the federal spill prevention requirement contained in 40 CFR Part 112. Oil spill prevention, control, and countermeasure plans prepared in accordance with the above federal requirements may be used in partial fulfillment of this permit condition.

No SPCC Plan shall effectively satisfy the requirements of this section unless it has been reviewed by a Registered Professional Engineer and certified to by such Professional Engineer in compliance with WAC 173-240-160. Such certification shall in no way relieve the owner or operator of a facility of his duty to prepare and fully implement such Plan.

S7 BEST MANAGEMENT PRACTICES FOR YARD OPERATIONS AND MAINTENANCE

a) Yard Cleaning and Sweeping

The yard shall be cleaned on a regular basis to minimize the possibility that runoff will carry sandblasting material or other debris into the receiving water. Cleanup of areas contributing runoff shall consist of mechanical or manual methods to sweep up and collect the debris. Collected sandblasting debris shall be stored with the spent grit. The spent sand blasting grit, dust and other debris shall not accumulate to an extent that could be judged to be more than a minor deposition by vehicular or pedestrian traffic between regular cleanup efforts.

b) Sediment Traps

The sediment traps in the stormwater drainage system shall be inspected on a monthly basis and cleaned as necessary to ensure the interception and retention of solids entering the drainage system.

c) Chemical Storage

Solid chemicals, chemical solutions, paints, oils, solvents, acids, caustic solutions and waste materials, including used batteries, shall be stored in a manner which will prevent the inadvertent entry of these materials into waters of the state, including ground waters. Storage shall be in a manner that will prevent spillage by overfilling, tipping or rupture. In addition, the following practices shall be used:

1) All liquid products shall be stored on durable impervious surfaces and behind berms.

2) Waste liquids shall be stored under cover, such as tarpaulins or roofed structures or in a closed vessel.

3) Incompatible or reactive materials shall be segregated and securely stored in separate containment areas that prevent mixing of chemicals.

S7 BEST MANAGEMENT PRACTICES FOR YARD OPERATIONS AND MAINTENANCE (continued)

4) Concentrated waste or spilled chemicals shall be transported off-site for disposal at a facility approved by the Department of Ecology or appropriate County Health Department in accordance with the Solid Waste Disposal Plan requirements of Special Condition S9. These materials shall not be discharged to any sewer or state waters.

d) Recycling of Spilled Chemicals and Rinse Water

All metal finishing chemical solution, caustic wash, and rinse-water tanks shall be stored in diked areas with drains to intercept contained overflows and spills. Any intercepted chemical spill shall be recycled back to the appropriate chemical solution tank or disposed of. The spilled material must be handled or disposed of in such manner as to prevent its discharge into state waters.

e) Accidental Oil Discharge

No discharge of oil or hazardous material to state waters is permitted, except as specifically authorized in this permit. In the event of an accidental discharge of oil or hazardous material into waters of the state or onto land with a potential for entry into state waters, representatives of this department and the United States Coast Guard shall be notified immediately.

1) Cleanup efforts shall commence immediately and be completed as soon as possible, taking precedence over normal work, and shall include proper disposal of any spilled material and used cleanup materials.

2) Cleanup of oil/hazardous material spills shall be in accordance with an approved Spill Prevention Control and Countermeasure Plan.

3) No emulsifiers or dispersants are to be used in waters of the state without approval from the Director of the Department of Ecology.

S7 BEST MANAGEMENT PRACTICES FOR YARD OPERATIONS AND MAINTENANCE (continued)

f) Drip Pans

Drip pans or other protective device shall be required for all oil transfer operations to catch incidental spillage and drips from hose nozzles, hose racks, drums or barrels.

g) Dust and Overspray Control

Dust and overspray from abrasive blasting and painting in yard facilities shall be controlled with structures or drapes to the extent feasible to minimize the spreading of wind blown materials. Frequent cleanup of these areas shall be practiced to prevent abrasive blasting waste from being washed into storm sewers or adjacent waterway.

h) Paint and Solvent Mixing

The mixing of paints and solvents shall be carried out in locations and under conditions such that no spill shall enter state waters.

1) Drip pans or other protective devices shall be required for all paint mixing and solvent transfer operations; unless the mixing operation is carried out in controlled areas away from storm drains, surface waters, shorelines and piers. Drip pans and drop clothes or tarpaulins shall be used whenever paints and solvents are mixed on wood docks. Paints and solvents shall not be mixed on floats.

2) When painting from floats, paints shall be kept in cans of one gallon or less. Paint cans shall be kept in drip pans with drop clothes or tarpaulins underneath the drip pans.

3) Paint and solvent spills shall be treated as oil spills and shall be prevented from reaching storm drains or deck drains and subsequent discharge into the water.

S8 BEST MANAGEMENT PRACTICES FOR DRYDOCKS, MARINE RAILWAY AND VESSEL OPERATIONS AND MAINTENANCE

a) Control of Large Solid Materials.

Floatable and low density waste such as wood, plastic, miscellaneous trash such as paper, insulation, and packaging etc., shall be removed from the drydock floor prior to flooding or sinking and from the marine railway carriage and ramp before launching. Large high density material may remain in place when between the wing walls of the drydock.

The sediment traps of those drydocks having drainage systems shall be inspected on a monthly basis and cleaned as necessary to ensure the interception and retention of solids entering the drainage system.

b) Control of Paint Dust and Abrasive Blasting Debris.

Dust and overspray shall be prevented from falling into the water to the maximum extent feasible during abrasive blasting and spray painting of vessels and modules. Feasible methods of control, **when appropriate**, include plastic or cloth barriers beneath the hull, above and between the hull and the wing walls of the drydock when working above the wingwalls, plastic barriers hung from the communication bridge of the drydock, from the bow or stern of the vessel or from temporary structures erected for that purpose. Feasible methods include masts used to extend plastic or cloth barriers above drydock wing walls or vessels on marine railways. The bottom edge of tarpaulins and plastic sheeting shall be weighted to remain in place during a light breeze.

When sandblasting vessel superstructures which are not protected by wingwalls or other drydock structures, plywood and/or plastic sheeting shall be used to cover openings and open areas between decks including but not limited to scuppers, railings, freeing ports, ladders, and doorways.

Consideration shall also be given other feasible innovative procedures as appropriate and available to improve effectiveness of pollution prevention controls.

S8 BEST MANAGEMENT PRACTICES FOR DRYDOCK, MARINE RAILWAY AND VESSEL OPERATIONS AND MAINTENANCE (continued)

c) Cleanup of Blasting Debris and Spent Paint.

Cleanup of spent paint, paint chips, protective coating materials and abrasive shall be undertaken as part of the repair or production activities to prevent their entry into state waters.

Those portions of the drydock floor which are reasonably accessible shall be "scraped or broomed clean" using shovels to remove spent abrasive prior to flooding. Those portions of the marine railway which will be submerged during incoming tides shall be "scraped or brommed clean" of abrasive blast material and detritus before the incoming tide lifts lighter fractions from the railway and ramp or submerges the remaining abrasive blast material and detritus. There shall be no visible sheen created by any floating detritus resulting from abrasive blasting.

Mechanical cleanup may be accomplished by mechanical sweepers, front end loaders, vacuum cleaners or other innovative equipment. Manual methods include the use of shovels and brooms. Innovations and procedures which improve the effectiveness of cleanup operations shall be adopted where they are feasible, appropriate and can be demonstrated as preventing the discharge of solids to the water.

Oil contaminated sand shall be removed from the drydocks as soon as possible, and in all cases prior to submersion of the drydock.

After a vessel has been removed from the drydock and the dock has been raised for repositioning of the keel and bilge blocks, the remaining areas of the floor which were previously inaccessible shall be cleaned by scraping or broom cleaning prior to the introduction of another vessel into the drydock. The requirement to clean the previously inaccessible areas shall be waived either in an emergency situation or when another vessel is ready to be introduced into the drydock within fifteen (15) hours 15 hrs is allowed because of the tidal effect. Nevertheless, while the bilge blocks and keel blocks are being repositioned cleaning of the previously inaccessible areas will continue as long as practicable.

S8 BEST MANAGEMENT PRACTICES FOR DRYDOCKS, MARINE RAILWAY AND VESSEL OPERATIONS AND MAINTENANCE (Continued)

d) Oil, Grease, and Fuel Spills.

During the drydock period oil, grease, or fuel spills shall be prevented from reaching waters of the state. Cleanup shall be carried out promptly after an oil or grease spill is detected. Oil containment booms shall be conveniently stored so as to be immediately deployable in the event of a spill.

e) Paint and Solvent Spills.

Paint and solvent spills shall be treated as oil spills and segregated from discharge water. Spills shall be contained until cleanup is complete. Mixing of paint shall be carried out in locations and under conditions such that no spill shall enter state waters. The use of drip pans shall be required whenever paints and solvents are mixed on the drydock.

The amount of paint stored on the drydock floor shall be kept at a minimum not to exceed usage of one shift and shall be delivered in a timely manner to minimize paint storage time on the drydock.

f) Contact Between Water and Debris.

Shipboard cooling and process water shall be directed so as to minimize contact with spent abrasive, paint, and other debris. Contact of spent abrasive and paint with water will be reduced by proper segregation and control of wastewater streams. When debris is present, hosing of the dock shall be minimized. When hosing is used as a removal method, appropriate methods shall be incorporated to prevent accumulation of debris in drainage systems and be promptly removed to prevent its discharge with wastewater.

S8 BEST MANAGEMENT PRACTICES FOR DRYDOCKS, MARINE RAILWAY AND VESSEL OPERATIONS AND MAINTENANCE (Continued)

g) Segregation of Wastewater Flows in Drydocks.

The various process wastewater streams shall be segregated from the sanitary wastes.

h) Maintenance of Hoses, Soil Chutes, and Piping.

Leaking connections, valves, pipes, hoses and soil chutes carrying either water or wastewater shall be replaced or repaired immediately. Soil chute and hose connections to vessels and to receiving lines or containers shall be tightly connected and as leak free as practicable.

i) Bilge and Ballast Water.

Bilge and ballast water discharges shall not exceed an oil and grease concentration of fifteen (15) milligrams per liter and shall not cause any visible oil sheen in the receiving waters.

Bilge and ballast water shall not be discharged to state waters if solvents, detergents, or other additives have been added unless a state water quality variance has been granted specific to that instance.

S9 SOLID WASTE DISPOSAL

a) Leachate Prevention and Treatment.

The permittee shall not permit leachate from its solid waste material, including spent sandblasting grit and detritus, to enter state water without providing all known, available and reasonable methods of treatment, nor permit such leachate to cause any adverse effect on underground waters. The permittee shall apply for a permit modification as may be required for such discharges.

b) Waste Containment.

The permittee shall handle and dispose of all solid waste material in such a manner as to prevent its entry into state underground or surface waters and shall comply with the State Minimum Functional Standards for Solid Waste, WAC 173-304.

S9 SOLID WASTE DISPOSAL (continued)

c) Solid Waste Disposal Plan.

Within six months after issuance of this permit, the permittee shall submit to the department a plan for the handling and disposal of all solid waste material generated at the plant site. All such plans shall be reviewed and approved by the department to insure compliance with provisions (a), (b) and (c) above. The permittee shall comply with the plans as approved by the department.

d) Hazardous Waste Reporting [WAC 173-303-220 and WAC 173-303-390]

The owner or operator of a facility holding an active EPA/State identification number shall prepare and submit:

1) annual generator reports to the department, on the Generator Annual Dangerous Waste Report - Form 4 according to the instructions on the form, for each year no later than March 1 of the following year.

2) a copy of the annual facility report to the department for each year by March 1 of the following year. The report form and instructions in the TSD Facility Annual Dangerous Waste Report - Form 5 must be used for this report.

Forms 4 and 5 are available from the department.

Small quantity generators as defined in WAC 173-303-70(8) are excluded from submitting Forms 4 and 5 described above.

S10 OTHER REQUIREMENTS

a) New Facility Plan and Specification Review:

If new facilities are necessary to comply with any condition of this permit, plans and specification for such facilities shall be received for review and approval by NWRO of WDOE, as required by WAC 173-240-110, the time constraints of compliance schedule of special condition S2.

S10 OTHER REQUIREMENTS (continued)

b) Sanitary Sewage:

Sanitary sewage is to be discharged into the sanitary sewers.

c) Boiler Blowdown:

Boiler blowdown effluent shall be discharged into the sanitary sewers.

d) METRO Ordinances Enforced:

All requirements and ordinances of the Municipality of Metropolitan Seattle (METRO) pertaining to the discharge of wastes into the sanitary sewer are hereby made a condition of this permit.

e) Drydock Treatment for Marine Organisms:

If the permittee intends to treat any of the drydocks, from the keel to the main deck, to control the growth of marine organisms, a written request shall be submitted to this department for review and approval. The request shall detail the proposed treatment method and reasons for its selection over other available treatment alternatives. The department will review the proposed treatment method and the decision whether to approve the proposed method will be based on an evaluation of the probable environmental impacts.

f) Sewage and Gray Water Discharges Prohibited:

Owners of vessels in drydocks or under repair dockside shall be notified in writing by the permittee that federal and state regulations prohibit the discharge of sewage (including discharges from the ship's galley) into the waterways. Sanitary waste discharges shall be to either the sanitary sewer or holding tanks that are periodically emptied into a sanitary sewer system. At a minimum, the permittee will make available at all times a list of contractors providing disposal services.

GENERAL CONDITIONS

G1 Discharge Violations:

All discharges and activities authorized by this permit shall be consistent with the terms and conditions of this permit. The discharge of any pollutant more frequently than or at a level in excess of that authorized by this permit shall constitute a violation of the terms and conditions of this permit.

G2 Proper Operation and Maintenance:

The permittee shall at all times properly operate and maintain all facilities and systems of collection, treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with conditions of this permit.

G3 Reduced Production for Compliance:

The permittee, in order to maintain compliance with its permit, shall control production and/or all discharges upon reduction, loss, failure, or bypass of the treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power for the treatment facility is reduced, lost, or fails.

G4 Non-Compliance Notification:

If, for any reason, the permittee does not comply with or will be unable to comply with any of the discharge limitations or other conditions specified in the permit, the permittee shall, at a minimum, provide the department with the following information:

a) A description of the nature and cause of noncompliance, including the quantity and quality of any unauthorized water discharges;

b) The period of noncompliance, including exact dates and times and/or the anticipated time when the permittee will return to compliance; and

c) Steps taken or to be taken to reduce, eliminate, and prevent recurrence of the noncompliance.

G4 Non-Compliance Notification: (continued)

In addition, the permittee shall take immediate action to stop, contain, and clean up any unauthorized discharges and take all reasonable steps to minimize any adverse impacts to waters of the state and correct the problem. The permittee shall notify the department immediately by telephone so that an investigation can be made to evaluate any resulting impacts and the corrective actions taken to determine if additional action should be taken.

In the case of any discharge subject to any applicable toxic pollutant effluent standard under Section 307 (a) of the Clean Water Act, or which could constitute a threat to human health, welfare, or the environment, 40 CFR Part 122 requires that the information specified in items G4(a), G4(b), and G4(c), above, shall be provided not later than 24 hours from the time the permittee becomes aware of the circumstances.

If this information is provided orally, a written submission covering these points shall be provided within five days of the time the permittee becomes aware of the circumstances, unless the department waives or extends this requirement on a case-by-case basis.

Compliance with these requirements does not relieve the permittee from responsibility to maintain continuous compliance with the conditions of this permit or the resulting liability for failure to comply.

G5 Bypass Prohibited:

The intentional bypass of wastes from all or any portion of a treatment works to the extent that permit effluent limitations cannot be met is prohibited unless the following four conditions are met:

a) Bypass is: (1) unavoidable to prevent loss of life, personal injury, or severe property damage; or (2) necessary to perform construction or maintenance-related activities essential to meet the requirements of the Clean Water Act and authorized by administrative order;

b) There are no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, maintenance during normal periods of equipment down time, or temporary reduction or termination of production;

G5 Bypass Prohibited: (continued)

c) The permittee submits notice of an unanticipated bypass to the department in accordance with Condition G4. Where the permittee knows or should have known in advance of the need for a bypass, this prior notification shall be submitted for approval to the department, if possible, at least 30 days before the date of bypass (or longer if specified in the special condition);

d) The bypass is allowed under conditions determined to be necessary by the department to minimize any adverse effects. The public shall be notified and given an opportunity to comment on bypass incidents of significant duration, to the extent feasible.

"Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

After consideration of the factors above and the adverse effects of the proposed bypass, the department will approve or deny the request. Approval of a request to bypass will be by administrative order under RCW 90.48.120.

G6 Right of Entry:

The permittee shall allow an authorized representative of the department, upon the presentation of credentials and such other documents as may be required by law:

a) To enter upon the permittee's premises where a discharge source is located or where any records must be kept under the terms and conditions of the permit;

b) To have access to and copy at reasonable times any records that must be kept under the terms and conditions of the permit;

c) To inspect at reasonable times any monitoring equipment or method required in the permit;

G6 Right of Entry: (continued)

d) To inspect at reasonable times any collection, treatment, pollution management, or discharge facilities required under the permit;

e) To sample at reasonable times any discharge of pollutants.

G7 Permit Modifications:

The permittee shall submit a new application or supplement to the previous application where facilit expansions, production increases, or process modifications will (1) result in new or substantiall increased discharges of pollutants or a change in th nature of the discharge of pollutants, or (2) violat the terms and conditions of the existing permit.

G8 Permit Modified or Revoked:

After notice and opportunity for public hearing, thi permit may be modified, terminated, or revoked durin its term for cause as follows:

a) Violation of any term or condition of the permit

b) Failure of the permittee to disclose fully all relevant facts or misrepresentation of any relev facts by the permittee in the application or dur the permit issuance process;

c) A change in any condition that requires either a temporary or a permanent reduction or eliminati of any discharge controlled by the permit;

d) Information indicating that the permitted discha poses a threat to human health or welfare;

e) A change in ownership or control of the source;

f) Other cause listed in 40 CFR Part 122.62 and 122.63.

Permit modification, revocation and reissuance, or termination may be initiated by the department or requested by any interested person.

G9 Reporting a Cause for Modification:

A permittee who knows or has reason to believe that any activity has occurred or will occur which would constitute cause for modification or revocation and reissuance under Condition G8. or 40 CFR Part 122.62 must report its plans, or such information, to the department so that a decision can be made on whether action to modify or revoke and reissue a permit will be required. The department may then require submission of a new application. Submission of such application does not relieve the discharger of the duty to comply with the existing permit until it is modified or reissued.

G10 Toxic Pollutants:

If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307 (a) of the Clean Water Act for a toxic pollutant and that standard or prohibition is more stringent than any limitation upon such pollutant in the permit, the department shall institute proceedings to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition.

G11 Plan Review Required:

Prior to constructing or modifying any wastewater control facilities, detailed plans shall be submitted to the department for approval in accordance with WAC 173-240. Facilities shall be constructed and operated in accordance with the approved plans.

G12 Other Requirements of 40 CFR:

All other requirements of 40 CFR 122.41 and 122.42 are incorporated into this permit by reference.

G13 Compliance with Other Laws and Statutes:

Nothing in this permit shall be construed as excusing the permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.